ES-19 GHG emissions reduction from fuel combustion in extraction operations
Assessment: Low Priority – Bin C

Fuel combustion in extraction operations can take several forms and must be addressed as separate components of any GHG emissions reduction strategy. In all phases of exploration and production, vehicles transport workers and material over long distances, and emissions reduction for this component should be tied to overall automotive emissions reduction state-wide. In the case of various mined mineral commodities, long distance transportation is often accomplished by railway. Another component of the strategy could be to address railroad transportation emissions reduction.

All fuel combustion equipment that is utilized in energy extraction represents consumptive cost to a business venture and acts as a natural disincentive to unnecessary fuel utilization and the corresponding emissions. Thus, in order to reduce business expenses, many companies in the energy and minerals extraction industry have voluntarily worked toward higher efficiency engines, lower fuel consumption, or alternative fuels that result in lower combustion emissions.

Policies to encourage combustion-related GHG emissions reduction could include tax credits for mineral or petroleum producers or establishment of a state recognition program for voluntary efforts such as EPA's Natural Gas Star program.

Any policy for GHG emissions reduction will require determination of baseline performance and characterization of the subsequent effects of implementing new emission reduction strategies and technologies. The levels of such emissions are not well documented through current regulatory reporting channels, and available estimates or inventories may overstate the GHG emissions that are occurring. Even if some extraction and transportation companies have such information in detail or the means to obtain it, disclosure of such information should be constructively encouraged while avoiding the imposition of regulatory requirement. Companies should be rewarded for voluntary participation in GHG emissions reduction, but not penalized for non-participation.

ES-44 Leakage reduction program

Assessment: Low Priority – Bin C

Estimates of methane loss during production, processing and transportation of hydrocarbons vary greatly, leading to inaccurate characterization of such emissions. Because methane is a saleable commodity, there is an inherent value that promotes capture and retention of the material. This inherent value also drives regulations (federal and State) that are in place to prevent the waste of and require control of such emissions where there is known to be a risk of significant emissions occurring.

Many new emission control technologies have been implemented in recent years, and typical crude oils and natural gas produced in Utah oil and gas fields are of a type that would not lead to large emissions of methane if normal operational procedures are executed. Utah DEQ is nevertheless assembling a state-wide estimate of such emissions at oil and gas facilities. There is no comparable estimate being assembled state-wide for emissions during transmission all the way to the end user although there are EPA and international technical protocols for estimating such emissions.

Policies to encourage leakage reduction could include tax credits for mineral or petroleum producers or establishment of a state recognition program for voluntary efforts such as U.S. Environmental Protection Agency's Natural Gas Star program.

Any policy for leakage reduction will require determination of baseline performance and characterization of the subsequent effects of implementing new emission reduction strategies and technologies. The levels of such emissions are not well documented through current regulatory reporting channels, and available estimates or inventories may overstate the leakage quantities that are occurring. Even if some extraction and transportation companies have such information in detail or the means to obtain it, disclosure of such information should be constructively encouraged while avoiding the imposition of regulatory requirement. Companies should be rewarded for voluntary participation in leakage reduction, but not penalized for non-participation.